



730 Warren Road, Ithaca NY 148501-800-

344-2697 x 2172 www.dairyone.com

Pre-Sidedress Nitrate Testing (PSNT) Sample Information Sheet (861) \$6.00 per sample.

Agro-One will report results within 24 hours for samples received Monday through Friday.

Contact Information

Account Number: _____	Account Number: _____
Farm Name: _____	Consultant/Agency: _____
Address: _____	Address: _____
City: _____ State/Zip _____ / _____	City: _____ State/Zip _____ / _____
Fax/Email results to: _____	Fax/Email results to: _____

Sample Information – Attach additional sheets if needed Date Sampled _____
 Sequentially enter unique identification code (Field/Crop name or number etc.) used on submitted samples.

Sample Description	Lab use only	Sample Description	Lab use only
1		6.	
2		7.	
3		8.	
4		9.	
5		10.	

Bill to Dairy One Account or pay by check or credit card;

Number of samples _____ x \$6.00 = Total Due; \$ _____ Bill to Account # _____

Check Number _____ Credit Card [] Mastercard [] Visa [] American Express

Card No. _____ Expires Month _____ Year _____ 3 digit verification Code _____

Signature _____

Pre Sidedress Nitrate Testing (PSNT) is used to determine if sidedress N is needed on field corn with a history of manure or sod incorporation. **PSNT** measures nitrate N in the soil to determine the likelihood of a yield response from sidedressed N. **PSNT is recommended for** corn fields ≥ 2 years after a sod and/or where manure rate is uncertain, if manure application is not expected to meet corn N requirement, or if N mineralization rates are expected to be higher than average, e.g. warm, moist soil. **PSNT is not recommended** where pre plant or early post plant broadcast fertilizer N applications were made since “leftover” nitrate could overestimate N mineralization potential of the soil, first year corn after a grass sod and starter N or first year corn after an alfalfa grass stand is plowed down.

Sampling Guidelines **A.** Limit sample area to <15 acres. **B.** Take separate samples for areas that are different, e.g. hybrid, population, growth stage, history, etc. **C.** Sample when corn is 6-12 “tall. **D.** Wait 2-3 days after significant rainfall (due to nitrate leaching). **E.** Sample between rows taking care to avoid the starter band. **F.** Collect 15–20 cores from a 12” depth and probe between rows. **G.** Air dry the sample immediately to stop mineralization. **H.** Mix and submit a cupful per sample for PSNT analysis to;
Agro-One, 730 Warren Road, Ithaca, NY 14850. 1-800-344-2697

Interpretation of test results for field corn:

PSNT > 25 ppm Nitrate N – no additional sidedress N needed. Response to sidedress N applications very low.
PSNT 21 – 25 ppm Nitrate N – 25 – 50 pounds sidedressed N if yield response is expected.
PSNT < 21 ppm Nitrate N – Response to added N very likely. Apply sidedress N according to Cornell N guidelines for corn.
<http://nmsp.cals.cornell.edu/guidelines/nutrientguide.html>



AGRO-ONE PSNT TESTING FOR ANNUAL VEGETABLE CROPS (861) \$6.00 per sample

Agro-One will report results within 24 hours after receiving your samples if they arrive Monday thru Friday

In season soil nitrate testing can be used to predict the sufficiency of soil nitrogen for a number of annual vegetable crops. Focus sampling efforts on fields that have received recent applications of N rich amendments e.g. manure or compost, or broadcast applications of N fertilizer at planting. PSNT testing may also help determine carry-over N from a legume cover crop or an early crop like peas or snap beans for a fall crop such as cabbage.

SAMPLING GUIDELINES

- A. Limit sample area to < 15 acres.
- B. Collect 15–20 soil cores from a 12 inch depth and probe between rows but be careful to avoid any starter fertilizer band.
- C. Sample through the plastic if N was broadcast pre-plant and covered with plastic mulch.
- D. Take a separate sample for areas that are different, e.g. crop, cultivar, population, growth stage, history, etc.
- E. Wait 2-3 days after significant rainfall (due to nitrate leaching).
- F. Air dry or microwave the sample immediately to stop mineralization.
- G. Complete the customer and sample information on the front of this form. Submit a cupful per sample and payment (credit card, check or bill to a Dairy One account) for PSNT analysis to:

Agro-One, 730 Warren Road, Ithaca, NY 14850 1-800-344-2697 x 2179

The suggested time for PSNT sampling for various crops is shown below:

CROP	TIME OF PSNT SOIL SAMPLING
Sweet corn	When corn plants are 6 – 10 inches tall
Cabbage, Cauliflower, Broccoli, Brussels Sprouts	2 weeks after transplanting
Celery	2 weeks after transplanting and again in 3 – 4 weeks
Lettuce, Endive, Escarole	2 weeks after transplanting or thinning (2 – 4 leaf stage) if direct seeded.
Beets, Turnip, Rutabaga	After thinning (2 – 4 leaf stage)
Pumpkin, Winter Squash, Cucumber, Muskmelon	When vines are 6 inches long
Spinach	At 2 – 4 leaf stage and again after cutting
Irish potato	When plants are 6 inches tall.
Pepper, Tomato, Eggplant	At first fruit set and again 3 – 4 weeks later

INTERPRETATION OF IN-SEASON PSNT TEST FOR ANNUAL VEGETABLE CROPS

Soil test NO ₃ -N (ppm)	INTERPRETATION
Less than 20	Very likely N deficient. Sidedress N is recommended.
20 - 24	May be sufficient for some crops. A low rate of sidedress N may be applied to ensure that N is sufficient.
25 – 30	Sufficient N is available for most crops. Sidedress N is usually not recommended.
Greater than 30	Economic response to added N is unlikely. Sidedress N is not recommended.
Greater than 50	Indicates EXCESSIVE application of manure, compost or other N sources.

Source; www.rce.rutgers.edu Bulletin E285 Soil Nitrate Testing as a Guide to Nitrogen Management for Vegetable Crops Joseph R. Heckman, Ph.D.